Cambridge Senior General Mathematics AC/VCE Units 1 \& 2 Chapter 4 Financial arithmetic: Skillsheet 4C

1 Find the rate of simple interest (correct to one decimal place) in each of the following situations:
a $\quad \$ 10000$ increases to $\$ 12000$ in two years
b $\quad \$ 5300$ invested for five years and earning $\$ 2119$ interest
c $\quad \$ 620$ invested for one year and earning $\$ 24.80$ interest
d $\quad \$ 200500$ invested for two-and-a-half years and earning $\$ 30075$ interest
e $\quad \$ 150$ invested for 18 months and earning $\$ 7.88$ interest
f $\quad \$ 1125$ invested for four years and 3 months and earning $\$ 262.97$ interest

2 Find the number of years taken for the following investments (correct to one decimal place) to earn the stated amounts of simple interest:
a $\quad \$ 10000$ at $5 \%$ per annum earns $\$ 1500$
b $\quad \$ 20000$ at $6 \%$ per annum earns $\$ 3000$
c $\quad \$ 2400$ at $12 \%$ per annum earns $\$ 864$ interest
d $\quad \$ 700$ at $5 \%$ per annum earns $\$ 140$ interest
e $\quad \$ 1000$ at $7.5 \%$ per annum earns $\$ 112.50$ interest
f $\quad \$ 72500$ at $7.25 \%$ per annum earns $\$ 21025$ interest

3 How much should be invested to earn the interest stated over the period given in each of the following? Give you answers correct to the nearest dollar.
a Interest of \$1000 at a simple interest rate of 5\% per annum over five years
b Interest of $\$ 700$ calculated at $7 \%$ per annum simple interest over four years
c Interest of \$15000 calculated at 3\% per annum simple interest over five years
d Interest of \$22500 calculated at $4 \%$ per annum simple interest over five years
e Interest of \$10500 calculated at 3\% per annum simple interest over 42 months
f Interest of \$22500 calculated at $4 \%$ per annum simple interest over 18 months

4 How much should be invested to achieve the investment stated over the period given in each of the following? Give you answers correct to the nearest dollar.
a The amount of \$12 300 if the principal is invested at a simple interest rate of 5\% per annum for five years
b The amount of $\$ 33600$ if the principal is invested at a simple interest rate of $4 \%$ per annum for five years
c The amount of $\$ 53000$ if the principal is invested at a simple interest rate of $3 \%$ per annum for two years
d The amount of \$100 000 if the principal is invested at a simple interest rate of $8 \%$ per annum for two years

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## Answers for Chapter 4 Skillsheet 4C

1 a $10 \%$
b $8 \%$
c $4 \%$
d $6 \%$
e $3.5 \%$
f $5.5 \%$
2 a 3 years
b 2.5 years
c 3 years
d 4 years
e 1.5 years
f 4 years
3 a $\$ 4000$
b $\$ 2500$
c $\quad \$ 100000$
d $\$ 112500$
e $\quad \$ 100000$
f $\$ 375000$
$4 \quad \mathbf{a} \quad \$ 9840$
b $\quad \$ 28000$
c $\quad \$ 50000$
d $\$ 86207$

